

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1-8 are pending in this application. By this Amendment, claim 1 is amended. No new matter is added.

Double Patenting Rejection

Claim 1 is provisionally rejected on the ground of nonstatutory double patenting over claim 1 of co-pending Application No. 10/567,136, and further in view of Publication No. 7,146,410 ("Akman"). Applicants respectfully traverse this rejection for the reasons discussed below.

Applicants respectfully submit that the Examiner failed to set forth a *prima facie* case of nonstatutory obviousness-type double patenting because in order to make out a *prima facie* case, the Examiner is required to perform an analysis that parallels that of a 35 U.S.C. § 103(a) obviousness determination.¹ Applicants respectfully submit that the rejection of claim 1 of co-pending Application No. 10/567,136 in view of Akman is improper.

In particular, in order to establish a *prima facie* case of obviousness, the Examiner must establish that it would have been obvious for one of ordinary skill to have combined the teachings of the cited documents.² One way to establish this would be to show "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" and "identify a reason that would have

¹ *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).

prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”³ Furthermore, the Examiner must make “explicit” this rationale of “the apparent reason to combine the known elements in the fashion claimed,” including a detailed explanation of “the effects of demands known to the design community or present in the marketplace” and “the background knowledge possessed by a person having ordinary skill in the art.”⁴

It is respectfully submitted that the Examiner has not met these criteria. For example, the Examiner asserts that:

[i]t would have been obvious to one having ordinary skill in the art to modify the system of the Copending Application by replacing a transaction number by the agent equipment and then forwarding the message as suggested by Akman. The benefit for the modification is to allow the agent equipment to translate network addresses between different networks.⁵

However, it is respectfully submitted that the above statement is merely conclusory and do not comprise an “*explicit rationale*” as required by *KSR Int’l*. Therefore, because the Examiner has not provided an explicit analysis as required by *KSR Int’l*, a *prima facie* case of obviousness has not been established.

Further, Applicants respectfully submit that if the proposed modification or combination of the prior art would change the *principle of operation* of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.⁶ Applicants respectfully submit that the proposed combination of the Song and the Akagawa references would require a substantial reconstruction and

² See *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. at 398, 82 USPQ2d at 1396 (2007).

³ *Id.*

⁴ *Id.*

⁵ See Office Action mailed February 13, 2009, page 5, first full paragraph.

⁶ *In re Ratti*, 270 F.2d 810, 23 USPQ 349 (CCPA 1959).

redesign as well as a change in the basic principle under which the Akman reference construction was designed to operate. For example, the Akman reference discloses that the operation mechanism of firewall/NAT 160 is based on translation of IP addresses of the MG in different networks, and such translation is based on NAT table. In other words, before the interaction between MG and MGC, all IP addresses of the MG in other networks are saved in NAT table in advance. If the IP address of a MG in private network is changed, service change message will be sent to firewall/NAT 160 which modifies IP address of the MG in private network in NAT table maintained by it. Therefore, in Akman, the MG is distinguished by the corresponding relation of IP addresses of the MG in two networks pre-configured in NAT table to implement forwarding in traversing networks (i.e., the forwarding manner by using transaction number replacement and endpoint identifies is essentially different from address change manner using NAT tables, as employed in Akman. Therefore, it will be difficult to modify or redesign the semiconductor package of the Akman reference, without destroying the reference.

In view of the above, Applicants respectfully submit that the Examiner failed to set forth a *prima facie* case of nonstatutory obviousness-type double patenting. Therefore, Applicants respectfully request that this rejection be reconsidered and withdrawn.

Claim Rejections under 35 U.S.C. § 102

The Office Action rejected claims 1-4 and 6-7 under 35 U.S.C. 102(e) as being anticipated by Akman et al. (US 7146410). Applicants respectfully traverse this rejection for the reasons discussed below.

Applicants respectfully submit that the Akman reference fails to disclose or suggest each and every element of claim 1, and therefore, an anticipatory rejection has not been established.⁷

For example, claim 1, as amended, recites, *inter alia*:

for a MGCP/MEGACO signaling sent from the media gateway to the media gateway controller, if not related to media, directly replacing a transaction number by the agent equipment and then forwarding according to domain name in endpoint identifier.

In the outstanding Office Action, the Examiner contends that the Akman reference discloses "...the Network Address Translation (NAT) is for translating the IP address of the media gateway included in the control protocol message (Col. 2, lines 12-15)..." and "...after receiving the Service Change message, the firewall/NAT 160 then inspects the message and changes the IP address of the MG from [10.12.2.2] to [175.17.4.1]..." Applicants respectfully disagree.

For instance, the operation mechanism of a firewall/NAT 160 is based on translation of IP address of the MG in different networks, and such translation is based on NAT table. Further, before the interaction between the MG and MGC, all IP addresses of the MG in other networks are saved in the NAT table in advance. If an IP address of the MG in private network side is changed, service change message will be sent to the firewall/NAT 160 which changes the IP address of the MG in the private network in the NAT table maintained thereby.

⁷ A claim is anticipated only if each and every element as forth in the claim is found, either expressly or inherently described, in a single prior art reference. See MPEP § 2131; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

In contrast, example embodiments of the present application disclose that for signaling not related to the MG, it may directly assign a new transaction number to replace original transaction number, by the agent equipment, and may record the corresponding relation between transaction numbers. Moreover, example embodiments disclose forwarding signaling to the MGC in the manner of directly replacing a transaction number, replacing the new transaction number after receiving a response from the agent equipment MGC with original transaction number still in such a manner, uniquely identifying MG by using endpoint identifiers, and then forwarding the response signaling to the MG.

Applicants submit that one skilled in the art would appreciate that the use of transaction number is for distinguishing correspondence between the signaling sent by MG and the response signaling returned by MGC to ensure that the response signaling forwarded to the MG is correct; and the use of endpoint identifiers is for distinguishing different MG to ensure the correct forwarding of the response signaling.

Therefore, the forwarding manner by using transaction number replacement and endpoint identifiers of claim 1 is essentially different from the address change manner by using NAT table, as employed by the Akman reference.

Moreover, compared with the manner in Akman that requires pre-maintenance of NAT table and configuration in the firewall/NAT160, the method of claim 1 discloses temporary assigning transaction numbers during use, and the entire process may be finished dynamically without requiring pre-configuration on any information of MG, thus service management is highly facilitated. Furthermore, the use of endpoint identifiers for uniquely identifying the MG ensures that the MGC and MG in different networks can

implement transparent traversing.

Since the Akman reference fails to disclose each and every element of claim 1, it cannot provide a basis for a rejection under 35 U.S.C. § 102(e) and, thus, is allowable. Claims 2-4 and 6-7 depend from amended claim 1 and, therefore, allowable for the similar reasons discussed above with respect to claim 1.

Further, in regard to claim 2, Applicants respectfully submit that the Akman reference fails to disclose or suggest "each endpoint identifier includes domain name information of a media gateway, and the media gateway controller distinguishes media gateways according to their domain names in the endpoint identifiers," as recited in claim 2.

In the outstanding Office Action, the Examiner contends that in FIG. 1A Akman discloses "...each Media Gateway are identified by a domain name. By way of example, box 140 of fig.1A discloses a Media Gateway identified as 10.12.2.2."⁸ However, Applicants submit that each MG is not identified by a domain name in FIG. 1A of Akman, which only shows that each MG has an IP address in a network side. Moreover, due to the IP address changes between private network and public network, it apparently can not be used to uniquely distinguish the MG. Akman requires address change when MG is accessed from private network to the MGC of public network, thus MGC surely can not distinguish in which MG is accessed only using IP address.

In contrast, claim 2 discloses using domain name, which may be character address corresponding to digital IP address in the network and will not change due to networks traversing. Therefore, since claim 2 uses domain name to uniquely distinguish the MG, it cannot teach or suggest the features of claim 2.

Additionally, the Office Action asserts that in Col. 3, lines 19-25, Akman discloses “MEGACO is a control protocol that is used by a Media Gateway Controller (MGC) to control at least one Media Gateway (MG). MG’s include resources (terminations) that can be identified by IP addresses. When an MGC communicates with an MG using MEGACO, the MEGACO messages carry IP addresses corresponding to specific resources within the MG”⁹, which reveals a concept of resources (terminations) that can be identified by IP addresses. Such concept may not use only domain name but also other parameters which are likely to change as IP address when traversing networks.

Furthermore, this portion in Akman only indicates that resources (terminations) can identify IP address, but does not indicate that it can identify MG when traversing networks and can be identifiers for uniquely distinguishing MG without change when traversing networks.

Therefore, the use of domain name included in endpoint identifiers for uniquely distinguishing MG in claim 2 is not disclosed or taught by the Akman reference .

For at least these reasons, the Examiner is respectfully requested to reconsider and withdraw the § 102(e) rejection of claims 1-4 and 6-7.

Claim Rejections under 35 U.S.C. § 103

The Office Action rejected claims 5 and 8 under 35 U.S.C. 103(a) as being anticipated by Akman et al. in view of Non Patent Literature “RFC 3015-Megaco Protocol Version 1.0” (“RFC 3015”). Applicants respectfully traverse this rejection for the reasons discussed below.

⁸ See Office Action mailed February 13, 2009, page 9, first full paragraph.

⁹ See Office Action mailed February 13, 2009, page 5, second full paragraph.

Claims 5 and 8 are believed to be allowable for at least the reasons set forth above regarding claim 1. The RFC 3015 reference fails to provide the teachings noted above as missing from the Akman reference. Since claims 5 and 8 are patentable at least by virtue of their dependency on claim 1, Applicants respectfully request that the rejection of claims 5 and 8 under 35 U.S.C. § 103(a) be withdrawn.

Moreover, Applicants submit that claim 5 is allowable for at least the following reasons:

point a):

Applicants submit that the Akman and the RFC 3015 references, individually or in combination, fail to disclose or suggest, “if the signaling is a signaling for creating a connection, further recording on the agent equipment an endpoint identifier of the connection,” as recited in claim 5.

In the outstanding Office Action, the Examiner contends that in Fig. 3a, box 345 of Akman “ADD” message is sent to the MG along **with the domain and IP address of the MGC**, which corresponds to the “endpoint identifiers” in claim 5. However, the **endpoint identifiers** in claim 5 are used to **identify the MG** rather than the domain and IP address of the MGC. Thus the endpoint identifiers in claim 5 are different from the domain and IP address of the MGC along with “ADD” message in Akman in function and they are not the same parameter.

Moreover, in Akman, the operation mechanism of firewall/NAT 160 is based on translation of IP addresses of the MG in different networks, and such translation is based on NAT table. Before the interaction between MG and MGC, all IP addresses of the

MG in other networks are saved in NAT table in advance. If the IP address of a MG in private network is changed, service change message will be sent to firewall/NAT 160 which modifies IP address of the MG in private network in NAT table maintained thereby. Therefore, in Akman, the MG is distinguished by the corresponding relation of IP addresses of the MG in two networks pre-configured in NAT table to implement forwarding in traversing networks.

However, example embodiments of the present invention disclose that all of MGs in the same MGC are uniquely distinguished by endpoint identifiers to implement forwarding in traversing networks. Therefore, Akman does not disclose the technical feature that plays the same function as “endpoint identifiers” in claim 5. As stated above, the use of endpoint identifiers for uniquely identifying the MG in the technical solution of claim 5 ensures that the MGC and MG in different networks can implement transparent traversing.

point b):

Further, Applicants submit that the Akman and the RFC 3015 references, individually or in combination, fail to disclose or suggest, “creating or modifying a corresponding media forwarding port and a forwarding table on the agent equipment after receiving a signaling for establishing or modifying a connection sent to a media gateway from the media gateway controller,” as recited in claim 5.

Instead, the Akman reference discloses the NAT table of firewall/NAT 160 is pre-configured and is maintained ceaselessly, and all IP addresses of the MG in other networks are saved in the NAT table in advance before the transaction between MGC and MG. However, example embodiments of the present invention discloses that the

forwarding port and forwarding table are created on the agent equipment in real time after receiving a signaling for establishing a connection sent to MG from the MGC, rather than are pre-configured.

Moreover, the signaling for establishing or modifying a connection is sent by the MGC. However, the signaling for modifying in Fig. 3A and other figures in Akman pointed out in this Office Action is sent by the MG; and the signaling for establishing is pre-configured in the NAT table of firewall/NAT 160 rather than is created in real time, thus it is not discussed in Akman.

point c):

Further, Applicants submit that the Akman and the RFC 3015 references, individually or in combination, fail to disclose or suggest, “sending a signaling for releasing the connection to the media gateway from the media gateway controller after calling finishes, releasing the corresponding media forwarding port on the agent equipment according to the endpoint identifier, and then forwarding the signaling to the media gateway,” as recited in claim 5.

Applicants submit according to the technical feature of this part, it can be seen that the forwarding port and forwarding table are required to be reclaimed after the transaction between the MGC and MG, which further indicates that the forwarding port and forwarding table are created and reclaimed in real time; and the use of the forwarding port and forwarding table is dynamic and is not pre-configured in combination with the technical feature of creating signaling and establishing a forwarding port and a forwarding table as discussed above. It also proves in the other side that the forwarding port and forwarding table established and used (and the step of

establishing and use in claim 5) are different from the firewall/NAT 160 and the NAT table in Akman.

Compared with the manner in Akman that requires pre-maintenance of the NAT table and configuration in firewall/NAT, in the method of claim 5, the use of the forwarding port and forwarding table is completed dynamically during the entire process without requiring pre-configuration of the information of the MG, thus the complexity of call services of the MGC is reduced and the utilization rate of resources are increased.

point d):

Further, Applicants submit that the Akman and the RFC 3015 references, individually or in combination, fail to disclose or suggest, “sending a signaling for releasing the connection to the media gateway from the media gateway controller after calling finishes, releasing the corresponding media forwarding port on the agent equipment according to the endpoint identifier, and then forwarding the signaling to the media gateway,” as recited in claim 5.

In the outstanding Office Action, the Examiner contends that this part is recorded in RFC 3015 as “in section 7, a subtract command disconnects a termination from its context. The subtract command on the last termination in a context deletes the context, thus a media gateway controller will send a subtract command to a media gateway to end/release a media stream.”

However, Applicant submits that the media port released in RFC 3015 and the media forwarding port released in the example embodiments are two different concepts. For instance, it can be known from section 6 as well as Fig.1, Fig.2 and Fig.3 in RFC 3015 that a media port in RFC 3105 is an original and terminator of a medium and is

located on the MG.

However, the media forwarding port in claim 5 exists on the agent equipment and is a receptor and a sender in one network (public network or private network) while a sender and a receptor in the other network (private network or public network).

The difference between the two may be illustrated as follows:

- i) *(media port of RFC3015)*<=====>
- ii) <=====> *(media port of this invention)* <=====>

Additionally, RFC 3105 defines that MGC controls the MG and media port is located on MG, thus the existing of the media port on the MG is known by the MGC in RFC 3105. However, example embodiments disclose that the MGC does not know the existing of media forwarding port; although the MGC and MG are located in two different network, the two network can not be seen from MGC side to thereby implement transparent traversing indeed.

Therefore, since the media port released in RFC 3105 is completely different from the media forwarding port released in example embodiments, the release actions for the corresponding different operation objects do not have comparability. RFC 3105 does not discloses the technical feature of “sending a signaling for releasing the connection to the media gateway from the media gateway controller after calling finishes, releasing the corresponding media forwarding port on the agent equipment according to the endpoint identifier, and then forwarding the signaling to the media gateway,” as recited in claim 5, and does not provide a teaching of applying this feature in claim 5 either.

point e):

Additionally, it can be known from the part Background of the description in this invention that the technical problem to be solved by the technical solution of the example embodiments is how to overcome the traditional signaling agent realizing method based on NAT can not implement transparent traversing and increases the complexity of call services of the MGC.

Thus a method distinguishing from NAT is provided that, as the amended technical solution in the example embodiments, using endpoint identifiers and dynamically using the forwarding port and forwarding table. However, it is inevitable to partially use address change in traversing networks no matter the technical solution in example embodiments or the solution of NAT in the traditional manner. One skilled in the art can appreciate that “not all solutions that use address change are similar.”

Accordingly, based on the above reasons, Akman and RFC 3015 fail to disclose the corresponding technical features of claim 5; additionally, the technical features are not conventional means for a person having ordinary skill in the art. Reconsideration and withdrawal of the rejection under 35 U.S.C. 103(a) are respectfully requested.

CONCLUSION

In view of the above remarks and amendments, Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. Further, the above remarks demonstrate the failings of the outstanding rejections, and are sufficient to overcome the rejections. However, these remarks are not intended to, nor need they, comprehensively address each and every

reason for the patentability of the claimed subject matter over the applied prior art. Accordingly, Applicants do not contend that the claims are patentable solely on the basis of the particular claim elements discussed above.

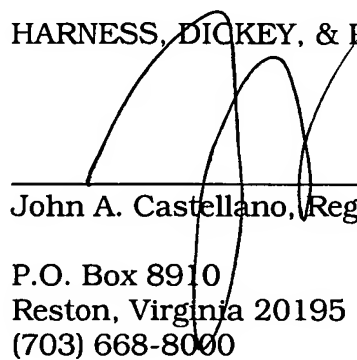
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned, at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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